

GENERAL SYMBOLS

EXISTING	PROPOSED	
		CATCH BASIN (OR GUTTER INLET, OR LEACHING BASIN)
		CATCH BASIN (OR GUTTER INLET) WITH CURB INLET (GUTTERMOUTH)
		EDGE OF ROAD
		ELECTRIC HANDHOLE (NUMBER AS NOTED)
		ELECTRIC MANHOLE "
		TELEPHONE MANHOLE "
		WATER MANHOLE "
		SEWER MANHOLE "
		DRAINAGE MANHOLE "
		GAS GATE
		WATER GATE
		CURB STOP
		HYDRANT
		FIRE ALARM BOX
		PARKING METER
		STREET LIGHT POLE
		UTILITY POLE
		GUY POLE
		DRAIN PIPE (UNDER 24")
		DRAIN PIPE (DOUBLE LINE 24" AND OVER)
		SEWER MAIN " "
		ELECTRIC DUCT " "
		GAS MAIN " "
		WATER MAIN " "
		TELEPHONE DUCT " "
		MAIL BOX
		HIGHWAY GUARD (TYPE NOTED)
		FENCE (SIZE AND TYPE NOTED)
		HIGHWAY/PROPERTY BOUND (TYPE NOTED)
		CITY, TOWN, OR COUNTY LAYOUT
		STATE HIGHWAY LAYOUT (S.H.L.O.)
		EASEMENT LINE
		PROPERTY LINE
		CITY, TOWN, OR COUNTY BOUNDARY
		STATE BOUNDARY
		BASE OR SURVEY LINE
		CONSTRUCTION BASELINE
		TREE (SIZE AND TYPE NOTED)
		HISTORIC FEATURES NUMBER

TRAFFIC SIGNAL SYMBOLS

EXISTING	PROPOSED	
		CONTROL CABINET GROUND MOUNTED (WITHOUT & WITH CONCRETE PAD)
		CONTROL CABINET POLE MOUNTED
		FLASHING BEACON CONTROL & METER PEDESTAL
		SIGNAL POST & BASE
		MAST ARM, SHAFT, & BASE (ARM LENGTH AS NOTED)
		VEHICULAR SIGNAL HEAD (ALPHA-NUMERIC DESIGNATION NOTED)
		VEHICULAR SIGNAL HEAD OPTICALLY PROGRAMMED "
		LIMIT OF VISIBILITY OF OPTICALLY PROGRAMMED SIGNAL HEAD
		FLASHING BEACON
		PEDESTRIAN SIGNAL HEAD
		PULL BOX 12" x 12"
		PEDESTRIAN PUSH BUTTON
		PRE-EMPTION DETECTOR
		PRE-EMPTION STROBE
		VIDEO DETECTION CAMERA
		CONTROLLER PHASE
		INDUCTIVE LOOP DETECTOR
		MAGNETIC DETECTOR (LANE, MULTI-LANE, DIRECTIONAL AS NOTED)
		MAGNETOMETER
		CONDUIT (COND.)
		CONDUIT CROSSING ROADWAY WITH CONTROLLED DENSITY FILL
		"x" DUCT (CONCRETE ENCASED)
		OVERHEAD CABLE
		DIRECT BURIED CABLE

PAVEMENT MARKINGS AND SIGNING SYMBOLS

EXISTING	PROPOSED	
		PAVEMENT ARROW AND LEGEND
		CROSSWALK, 2-12" WHITE LINES (WIDTH NOTED)
		STOP LINE, 12" WHITE LINE 4.0' BEHIND CW (TYP)
		YIELD LINE, 24" x 36" WHITE TRIANGLE, 36" O.C.
		SOLID WHITE CHANNELIZING LINE-SIZE AS NOTED
		SOLID YELLOW CHANNELIZING LINE-SIZE AS NOTED
		BROKEN WHITE LANE LINE - 6"
		SOLID WHITE LANE LINE - 6"
		DOUBLE YELLOW CENTERLINE - 4"
		SOLID YELLOW EDGE LINE - 6"
		SOLID YELLOW CENTER LINE - 6"
		SOLID WHITE EDGE LINE - 6"
		BROKEN YELLOW LANE LINE - 6"
		BICYCLE LANE
		BICYCLE DETECTION LEGEND
		SIGN AND POST
		DELINEATOR

ABBREVIATIONS

GENERAL			
ABAN	ABANDON	NTS	NOT TO SCALE
ADJ	ADJUST	PGL	PROFILE GRADE LINE
APPROX	APPROXIMATE	PROP	PROPOSED
BIT	BITUMINOUS	PVM'T	PAVEMENT
BOS	BOTTOM OF SLOPE	REM	REMOVE
(BO)	BY OTHERS	REMOD	REMODEL
CLF	CHAINLINK FENCE	RET	RETAIN
CONC	CONCRETE	R&D	REMOVE AND DISCARD
ELEV	ELEVATION	R&R	REMOVE AND RESET
EOP	EDGE OF PAVEMENT	R&S	REMOVE AND STACK
EXIST	EXISTING	RT	RIGHT
FND	FOUNDATION	STA	STATION
GRAN	GRANITE	TEMP	TEMPORARY
HMA	HOT MIX ASPHALT	TOS	TOP OF SLOPE
LOAM	LOAM BORROW	TYP	TYPICAL
LT	LEFT		
MAX	MAXIMUM		
MIN	MINIMUM		

UTILITIES	
ACOMP	ASHPALT COATED CORRIGATED METAL PIPE
CAP	CORRUGATED ALUMINUM PIPE
CIP	CAST IRON PIPE
CIT	CHANGE IN TYPE
COND	CONDUIT
DIP	DUCTILE IRON PIPE
FES	FLARED END SECTION
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HW	HEADWALL
HYD	HYDRANT
INV	INVERT
PVC	POLYVINYLCHLORIDE PIPE
PWW	PAVED WATER WAY
RCP	REINFORCED CONCRETE PIPE
TSV&B	TAPPING SLEEVE VALVE AND BOX
UP	UTILITY POLE

ALIGNMENT/GRADING	
CC	CENTER OF CURVE
HP	HIGH POINT
LP	LOW POINT
PC	POINT OF CURVE
PI	POINT OF INTERSECTION
PNT	POINT
PCC	POINT OF COMPOUND CURVE
PRC	POINT OF REVERSE CURVE
PT	POINT OF TANGENT
25.45	SPOT ELEVATION

PROFILES	
AD	ALGEBRAIC DIFFERENCE IN RATES OF GRADE
ELEV	ELEVATION
HSD	HORIZONTAL SIGHT DISTANCE
K	RATE OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVC	POINT OF VERTICAL CURVE
PVT	POINT OF VERTICAL TANGENT
PVRC	POINT OF VERTICAL REVERSE CURVE
PVCC	POINT OF VERTICAL COMPOUND CURVE
SSD	STOPPING SIGHT DISTANCE
VC	VERTICAL CURVE

TRAFFIC SIGNAL SYSTEMS	
R	STEADY CIRCULAR RED
Y	STEADY CIRCULAR YELLOW
G	STEADY CIRCULAR GREEN
FR	FLASHING CIRCULAR RED
-FR->	FLASHING RED ARROW
FY	FLASHING CIRCULAR YELLOW
-FY->	FLASHING YELLOW ARROW
	STEADY VERTICAL GREEN ARROW
	STEADY LEFT ARROW (RED, YELLOW OR GREEN PREFIX)
	STEADY RIGHT ARROW (RED, YELLOW OR GREEN PREFIX)
W	STEADY WALK-WHITE
DW	STEADY DON'T WALK-PORTLAND ORANGE
FDW	FLASHING DON'T WALK-PORTLAND ORANGE

CONCORD BRUCE FREEMAN RAIL TRAIL			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.		002	175

LEGEND & GENERAL NOTES

GENERAL NOTES

- TOPOGRAPHICAL INFORMATION FROM A SURVEY BY GREEN INTERNATIONAL AFFILIATES, INC MEDFORD, MASSACHUSETTS DURING MAY 2007.
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
- WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
- THE CONTRACTOR SHALL ALTER THE MASONRY OF THE TOP SECTION OF ALL EXISTING DRAINAGE STRUCTURES AS NECESSARY FOR CHANGES IN GRADE, AND RESET ALL WATER AND DRAINAGE FRAMES, GRATES AND BOXES TO THE PROPOSED FINISH SURFACE GRADE. REQUIRED NEW MASONRY SHALL BE CLAY BRICK CONFORMING TO M4.05.2.
- THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.
- TREES AND SHRUBS WITHIN THE LIMITS OF GRADING SHALL BE REMOVED ONLY UPON APPROVAL OF THE ENGINEER.
- AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT NO EXPENSE TO THE OWNER.
- THE TERM "PROPOSED" (PROP) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE AND RESET" (R&R).
- JOINTS BETWEEN NEW BITUMINOUS CONCRETE PAVEMENT AND SAWCUT EXISTING PAVEMENT SHALL BE SEALED WITH BITUMEN AND BACKSANDED.
- ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE RETAINED UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
- ALL EXISTING GRANITE CURB & EDGING SHALL BE RE-USED IN THE PROPOSED WORK, EXCEPT CURVED STONES OF A DIFFERENT RADIUS THAN PROPOSED CURB.
- ALL EXISTING STATE, COUNTY, CITY, AND TOWN LOCATION LINES AND PRIVATE PROPERTY LINES HAVE BEEN ESTABLISHED FROM AVAILABLE INFORMATION AND THEIR EXACT LOCATION ARE NOT GUARANTEED.